UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/648,420	08/23/2000	Richard David Day	SPEE0014	5648

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EXAMINER
TODD, GREGORY G

ART UNIT	PAPER NUMBER
2157	

DATE MAILED: 12/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/648,420	DAY ET AL.
	Examiner	Art Unit	
	Gregory G. Todd	2157	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>29 September 2005</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-14</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-14</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date <u>07/05/05</u>.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____ .

DETAILED ACTION

Response to Amendment

1.   This is a fourth office action in response to applicant's amendment filed, 29
September 2005, of application filed, with the above serial number, on 28 August 2000
in which claim 8 has been amended. Claims 1-14 are therefore pending in the
application.

It is noted, in the Remarks, Applicant addresses as responding to the Final Office
Action dated 22 April 2004, however, the Remarks appear and will be assumed to be in
response to the Non-final Office Action dated 29 June 2005.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all
obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

3.   Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over
Chauhan (hereinafter "Chauhan", 6,115,752) in view of Scharber (hereinafter
"Scharber", 6,542,964).

As per Claim 1, Chauhan discloses a method, comprising:

receiving a request from a user for a web page at a first web address, the first
web address including the hostname (request for address) (at least col. 6, lines 45-53);

determining traffic loads of a plurality of mirrored customer web servers, each of
the customer web servers storing the web page (mirrored server round trip times) (at
least col. 7, lines 24-42);

determining a customer web server from the plurality of mirrored customer web
servers that is appropriate for the request, the customer web server having a traffic load
lower than traffic loads of remaining customer web servers from the plurality of mirrored
customer web servers (mirrored server with best route) (at least col. 7, lines 24-42);

determining an IP address of the customer web server (address name server) (at
least col. 1, lines 41-53; col. 6, lines 45-63);

directing the request from the user to the customer web server (ONS routing
request) (at least Fig. 4); thereafter

receiving a request from the user for content on the web page at a second web
address, the second web address including the hostname (request for an address) (at
least col. 6, lines 45-53);

determining service metrics of servers in a network of servers (mirrored server
round trip times) (at least col. 7, lines 24-42);

determining the server from the network of servers that is appropriate for the
request for content, the server having service metrics better than service metrics of
remaining servers from the network of servers (mirrored server with best route) (at least
col. 7, lines 24-42).

Chauhan does not explicitly disclose caching servers as having cached static
content thereon to further mirror data of a customer webpage. However, the use and

advantages for using such a cache server is well known to one skilled in the art at the

time the invention was made as evidenced by the teachings of Scharber. Scharber

discloses many types of cache servers including POP cache servers for redirecting

requests for a most economical delivery of content to an end user (at least col. 4, lines

13-26, 46-56; col. 1, lines 60-67; col. 7, lines 3-7). Therefore, it would have been

obvious to one of ordinary skill in the art at the time the invention was made to

incorporate the use of Scharber's POP cache serving into Chauhan's system as this

would further enhance Chauhan's system to lessen load and traffic on mirror sites and

use Chauhan's optimizing address name translating with Scharber's POP cache servers

so as to geographically optimize latency between a client and static content from a

server thereon. Further, it is very well known in the art to use proxy / caching servers to

serve static content from a host to users, as Scharber teaches, and to also use mirror

servers as Chauhan teaches.

As per Claim 2.

determining load of servers in the network of servers (at least col. 2, lines 14-33;

col. 3, lines 39-53);

wherein determining the server from the network of servers that is appropriate for

the request, the server having a latency and a load lower than latency or load of the

remaining servers from the network of servers (at least col. 2, lines 14-33; col. 3, lines

39-53).

As per Claim 3.

Chauhan does not disclose caching static content. However, the use and

advantages for using such caching is well known to one skilled in the art at the time the

invention was made as evidenced by the teachings of Scharber. Scharber discloses:

determining whether the caching server includes the static content;

determining a web server that includes the static content when the caching server does

not include the static content (at least Scharber col. 4, lines 13-26, 46-56);

retrieving the static content from the web server that includes the static content

(at least Scharber col. 4, lines 13-26, 46-56); and

storing the static content from the web server in the caching server (caching

static content) (at least Scharber col. 4, lines 13-26, 46-56).

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to incorporate Scharber's static page caching into

Chauhan's system as this is very well known in the art as to how server caching is

performed for client requested static content.

As per Claim 4.

wherein determining the web server comprises:

determining traffic loads of the plurality of mirrored customer web servers, each

of the customer web servers storing the static content (mirror servers) (at least col. 3,

lines 39-53); and

determining another customer web server from the plurality of mirrored customer

web servers that is appropriate for the request, the another customer web server having

a traffic load lower than traffic loads of remaining customer web servers from the

plurality of mirrored customer web servers (best route to mirror server) (at least col. 3,

lines 39-53).

As per Claim 5.

Chauhan does not disclose caching from another server. However, the use and

advantages for using such a caching protocol is well known to one skilled in the art at

the time the invention was made as evidenced by the teachings of Scharber. Scharber

discloses wherein retrieving the static content from the web server comprises:

determining another IP address of the another customer web server (peer cache

or origin) (at least Scharber col. 4, lines 46-56); and

requesting the static content from the another customer web server at the

another IP address (retrieving content from origin server) (at least Scharber col. 4, lines

46-56).

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to incorporate Scharber's static page caching into

Chauhan's system as this is very well known in the art as to how server caching is

performed for client requested static content.

As per Claim 6.

wherein the network of servers comprises a domain name server (at least col. 1,

lines 41-67).

As per Claim 7.

wherein the request from the user for the web page is transferred from a first

domain name server (local name server) (at least Fig. 4);

wherein the network of servers comprises a second domain name server (ONS)

(at least Fig. 4; col. 3, lines 23-38); and

wherein the second domain name server determines the customer web server

from the plurality of mirrored customer web servers (ONS determines mirror server) (at

least col. 3, lines 39-53).

As per Claim 8, Chauhan discloses a method, comprising:

receiving a first request from a client DNS server to resolve a first domain name,

the client DNS server receiving a request from a user of a web page address that

includes the first domain name (request for address) (at least col. 6, lines 45-53);

determining load measurements of a plurality of mirrored customer web servers,

each of the customer web servers addressable by the first domain name, and each of

the customer web servers configured to service the request from the user (mirrored

server round trip times) (at least col. 7, lines 24-42);

determining a customer web server from the plurality of mirrored customer web

servers, the customer web server having a traffic load lower than traffic loads of other

customer web servers from the plurality of mirrored customer web servers (mirrored

server with best route) (at least col. 7, lines 24-42);

determining an IP address of the customer web server (address name server) (at

least col. 1, lines 41-53; col. 6, lines 45-63);

providing the IP address of the customer web server to the client DNS server

(LNS) (at least Fig. 4; col. 3, lines 39-53); thereafter

receiving a second request from the client DNS server to resolve a second

domain name, the client DNS server receiving a request from the user of a uniform

resource locator that includes the second domain name (request for an address) (at

least col. 6, lines 45-53);

determining performance metric measurement of servers in a network of servers,

each of the caching servers addressable by the second domain name (mirrored server

round trip times) (at least col. 7, lines 24-42);

determining a server from the network of servers, the server having performance

metrics lower than performance metrics of other servers from the network of servers

(mirrored server with best route) (at least col. 7, lines 24-42);

providing the IP address of the server to the client DNS server (LNS) (at least

Fig. 4; col. 3, lines 39-53).

Chauhan does not explicitly disclose caching servers as having cached content

thereon to further mirror data of a customer webpage. However, the use and

advantages for using such a cache server is well known to one skilled in the art at the

time the invention was made as evidenced by the teachings of Scharber. Scharber

discloses many types of cache servers including POP cache servers for redirecting

requests for a most economical delivery of content to a end user (at least col. 4, lines

13-26, 46-56; col. 1, lines 60-67; col. 7, lines 3-7). Therefore, it would have been

obvious to one of ordinary skill in the art at the time the invention was made to

incorporate the use of Scharber's POP cache serving into Chauhan's system as this

would further enhance Chauhan's system to lessen load and traffic on mirror sites and

use Chauhan's optimizing address name translating with Scharber's POP cache servers so as to geographically optimize latency between a client and content from a server thereon. Further, it is very well known in the art to use proxy / caching servers to serve static content from a host to users, as Scharber teaches, and to also use mirror servers as Chauhan teaches.

As per Claim 9.

wherein the load measurements comprise latency measurements (at least col. 2, lines 1-9, 42-57).

As per Claim 10.

wherein the performance metric measurements comprise any of: load CPU and memory measurements, HTTP response measurements, and FTP response measurements (load, ping) (at least col. 2, lines 14-33; col. 3, lines 54-66).

As per Claim 11.

Chauhan does not disclose caching static content. However, the use and advantages for using such caching is well known to one skilled in the art at the time the invention was made as evidenced by the teachings of Scharber. Scharber discloses wherein retrieving data from the caching server comprises:

determining whether the caching server includes the data (at least Scharber col. 4, lines 13-26, 46-56);

retrieving data from another customer web server from the plurality of mirrored customer web servers when the server does not include the data (at least Scharber col. 4, lines 13-26, 46-56); and

storing the data within the server (caching static content) (at least Scharber col.

4, lines 13-26, 46-56).

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to incorporate Scharber's static page caching into

Chauhan's system as this is very well known in the art as to how server caching is

performed for client requested static content.

As per Claim 12.

wherein retrieving data from the other customer web server comprises:

determining the other customer web server from the plurality of mirrored

customer web servers, the other customer web server having a traffic load lower than

traffic loads of remaining customer web servers from the plurality of mirrored customer

web servers (at least col. 2, lines 14-33; col. 3, lines 39-53); and

retrieving the data from the other customer web server (download content) (at

least col. 2, lines 1-9).

As per Claim 13.

receiving a first request from a second client DNS server to resolve a third

domain name, the second client DNS server receiving a request from a second user of

a second web page address that includes the third domain name (at least Fig. 4);

determining load measurements of a plurality of second customer web servers,

each of the second customer web servers addressable by the third domain name, and

each of the second customer web servers storing data configured to service the request

from the second user (mirrored servers) (at least Fig. 4);

determining a second customer web server from the plurality of second

customer web servers, the second customer web server having a traffic load lower than

traffic loads of other second customer web servers from the plurality of second

customer web servers; determining an IP address of the second customer web server

(at least col. 2, lines 14-33; col. 3, lines 39-53); and

providing the IP address of the second customer web server to the second client

DNS server (IP2) (at least Fig. 4).

As per Claim 14.

Chauhan inherently discloses more than one user using the system, and that

with any user, the mirror site with the best performance characteristics will be chosen as

the server to retrieve content from thereon:

receiving a second request from the second client DNS server to resolve the

second domain name, the second client DNS server receiving a request from the

second user of a second uniform resource locator that includes the second domain

name (at least Fig. 4; col. 2, lines 10-33);

retrieving a second set of data from the caching server in response to the second

uniform resource locator (at least Fig. 4; col. 2, lines 10-33); and

providing the second set of data to the user (at least Fig. 4; col. 2, lines 1-33).

Response to Arguments

4.   Applicant's arguments filed 29 September 2005 have been fully considered but

they are not persuasive.

Applicants argue, in substance, that Chauhan in view of Scharber does not teach

an integrated network using and benefiting from customer web servers and a network of

caching servers and that it would not be obvious to incorporate the teachings of

Scharber's POP cache serving into Chauhan's system.

Scharber is relied on as disclosing cache POP servers with static content (at

least col. 4, lines 21-26). It is well known in the art that cache servers store static

content, rather than dynamic content, since static content does not change and dynamic

content cannot be predicted and changes with time and thus has no value of being

cached. Also, the specification states on pp. 4, lines 1-5, static content as being

cacheable content, which is clearly depicted in Scharber. Scharber teaches his internet

content delivery system determining the cache protocol to be accorded to a particular

client/ customer (at least col. 9, lines 10-23); similarly, the servers of Chauhan serve

clients/ customers as it is well understood that a computer accessing a server is utilizing

the servers resources and thus being a 'customer' of that server. Further, the systems

of Scharber and Chauhan clearly are benefiting from using such caching as optimizers

and QoS techniques (at least Scharber col. 10, lines 34-52) are employed as well as the

fact that caching itself is used to benefit the client/ customer. Scharber further teaches

an integrated network (see Fig. 3) as well as Chauhan teaching an integrated network

(see Fig. 4). Unfortunately, the Examiner fails to find a description of any integrated

network used in the current invention's specification, and as such cannot determine how

the proposed integrated network would specifically pertain and be novel in the invention.

In response to applicant's argument that there is no suggestion to combine the references, as previously stated, the Examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Scharber and Chauhan both address the problems with latency in user accessibility to a web hosting site. Scharber further teaches retrieving static content from a cache server (POP cache server, edge cache server, personal cache and proxy server, etc.). Chauhan does disclose web servers, as Applicant admits. However, the claims only require the second request as requesting static content, which happens to be on caching servers. The fact that the request goes to caching servers itself does not hold patentable weight as caching servers also act as web servers and is simply a species of web server, as the specification acknowledges, and Scharber is disclosed as being able to retrieve the request from a POP server having cached content thereon. As Chauhan discloses sending the request to the optimal web server, it is understood and inherent for the mirrored web server to be any kind of web server, in which a caching web server would definitely be a likely candidate as having static content which is the most desirable content for mirroring over servers. Further, the limitations of claims 1 and 8 do not appear to fully relate with each other. For example, in claim 1, the limitations after "thereafter" in line 12 could happen at any time and it is not clear from the claims if

these steps are, for example, within the same session a client is accessing a host, or if

the caching servers are part of or related to the mirrored customer web servers (eg. a

cache of the mirror site or simply a cache of the origin site, both having the same static

content).

Conclusion

5.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

6.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

Newly cited Lara et al, Kenner et al, and Levy, in addition to previously cited

Jordan et al, Kumar et al, Jacobs et al, Amicangioli, Heddaya et al, Schuba, Bharat et

al, Lewis et al, O'Neil et al, Bolton et al, Emens et al, Shah, Leighton et al, Logan et al,

Rune, Sitaraman et al, Malcolm, Herriot, Kapoor, and Gupta et al are cited for disclosing

pertinent information related to the claimed invention. Applicants are requested to

consider the prior art reference for relevant teachings when responding to this office

action.

7.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Gregory G. Todd whose telephone number is (571)272-

4011. The examiner can normally be reached on Monday - Friday 9:00am-6:00pm w/
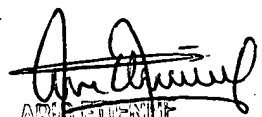
first Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Ario Etienne can be reached on (571)272-4001. The fax phone number for

the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Gregory Todd

Patent Examiner

Technology Center 2100

ARIO ETIENNE
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